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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,815

07/06/2005

Peter Krause

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EXAMINER

FRANCIS, FAYE

ART UNIT

PAPER NUMBER

3725

MAIL DATE

DELIVERY MODE

05/29/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/531,815

Applicant(s)

KRAUSE ET AL.

Examiner

Faye Francis

Art Unit

3725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 11-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 April 2005 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/18/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

I. Applicant's election with traverse of group I in the reply filed on 4/2/07 is acknowledged. The traversal is on the ground(s) that groups I and II are interrelated because the device is not being used for other processes and the process is not being performed with any other device. This is not found persuasive because the apparatus claims lack the special technical feature of the comminuting starting materials to a particle size of less than 1 micron as presented in the method claims of group I. The requirement is still deemed proper and is therefore made FINAL.

Claim Objections

2. Claim 5 objected to because of the following informalities: it appears that in line 1, one of the ",", should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The specification fails to sufficiently describe the invention claimed in claims 1 and 6 so as to enable one of ordinary skill in the art to make the invention claimed without undue experimentation. It is not clear from the specification what the tribochemical activation is and how the disintegration takes place under protective gas. What is the protective gas? Additionally, it appears as the specification teaches the use of the protective gas when organic material being disintegrated and not in the case of inorganic material as claimed in claim 1 from which claim 6 depends.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation of "Method for the disintegration and tribochemical activation in particular of inorganic materials" in the preamble of claim 1, renders the claim indefinite, since the preamble is conveying that the claim is a method type claim, but the body of the claim does not provides steps for disintegration method. Therefore, it is unclear what method/process applicant is intending to encompass. For examination purposes, the examiner will treat this claim as an apparatus claim.

Claim 1 is indefinite because it is not clear what the phrase "tribochemical activation" is intended to encompass.

Claim 1 is indefinite since all that the applicant considers to be encompassed by the phrase "in particular of inorganic materials" cannot be determined. Are there any other material to be comminuted other than inorganic materials?

Claim 1 is indefinite because it is not clear whether the word in the parentheses is intended to further limit the claim.

Claim 3 recites the limitation " the crystal lattice" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation " said particles" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 is indefinite because it is not clear what the phrase "protective gas" is intended to encompass.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Willems [3,062,457].

The claims are interpreted as best understood by the examiner. The claims are interpreted as requiring disintegration of inorganic materials [solid material] wherein the materials are comminuted [col 1 line 17] to a particle size of less than 1 microns [col 1 line 66 and col 8 line 54] and profiles [blades 17-20] are moved transonically with a

pulse duration of 10 and a repetition rate of greater than 8 kHz [col1 line 49 to col 2 line 17]. Willems is considered to clearly show a device having the structural elements of the claims that can be understood.

Claim Rejections - 35 USC § 103

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2-3 and 6 are rejected as best understood under 35 U.S.C. 103(a) as being unpatentable over Willems.

The limitations of these claims would have been obvious modifications by one skilled in the art once the basic apparatus was known. For example the solid material could encompass crystalline structure.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Francis whose telephone number is 571-272-4423. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Banks Derris can be reached on 571-272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Faye Francis
Primary Examiner
Art Unit 3725

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